



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

July 11, 2001

REPLY TO THE ATTENTION OF

SE-5J

VIA FACSIMILE AND U.S. MAIL

EPA Region 5 Records Ctr.



227055

Mr. Richard Berggreen  
STS Consultants, Ltd.  
750 Corporate Woods Parkway  
Vernon Hills, Illinois 60061

RE: **341 East Ohio Street Workplan**  
**Lindsay Light II Site/RV 3 North McClurg Court**

Dear Mr. Berggreen:

The U.S. Environmental Protection Agency (USEPA) has reviewed the 341 East Ohio Workplan (the Plan) submitted on May 4, 2001 and has the following comments:

**General Comments**

1) Overall, the Standard Operating Procedures (SOPs) should be revised to reflect the work being performed in Streeterville and not in West Chicago.

**Specific Comments**

2) **Sec.1.0, SCOPE AND OBJECTIVES, Page 1:** Add details about Velsicol's prior ownership/operation of property.

3) **Sec. 1.0, SCOPE AND OBJECTIVES, Page 3 (ii):** Insert "no further radiological investigation or removal action is required ..." (5<sup>th</sup> from the last sentence on this page)

4) **Sec. 2.3, Project Management Structure, Page 5:** Add s to (OSC), therefore, (OSCs).

5) **Sec. 2.3, Project Management Structure, Page 6, First paragraph:** This section must state the name of the project team, project manager, etc.

6) **Sec. 2.4, Delineation and Design, Page 7:** The wedge of material remaining on-site will need to be carefully surveyed in order to determine that this material is "clean". Many borings and/or lifts of material will be needed to conduct this survey work. The design for this work must be approved by this Agency before the Plan will be approved.

7) **Sec. 3.1.5, Excavation Work, Page 14, Second paragraph:** Provisions must also be made for the staging of "Baker Boxes".

8) **Section 3.1.1, Site Preparation, Page 11, First paragraph:** This section should mention that structures/foundations from Velsicol should be expected.

9) **Section 3.4.3, Training, page 25, First paragraph:** Federal requirements must take precedence over State requirements as noted in the footnote on page 11 of Attachment 3.

10) **Section 3.4.3, Second paragraph:** Training should also include radiation basics.

11) **Section 3.4.3, Third paragraph:** Tailgate meetings may be needed more often than weekly.

12) **Section 3.4.5, Monitoring, Page 26, First paragraph:** A primary requirement of dust control is "no visible dust."

13) **Section 3.5, Application of ALARA to Excavation, Page 27, Second paragraph:** USEPA has an oversight role. It is not involved directly in cleanup.

14) **Project Management Organization Chart:** USEPA does not report to the STS Project Coordinator. USEPA has an independent role.

**Attachment 1, Section 01020, CONSTRUCTION HEALTH AND SAFETY**

15) **Part 3 - Execution, Page 1, Paragraph d:** State specifically where emergency rescue equipment such as breathing apparatus, safety harness, etc. will be located.

16) **Sec. 3.2, Training, Page 3:** Add that there will be a competent person for shoring.

**Attachment 1, Section 02200, Contaminated Material Loadout and Transport**

17) **Sec. 2.6, B., Loadout, Page 10:** Will portable scales be present?

**Attachment 1, Section 02840, Site Utilities**

18) **Sec. 3.4, Underground Utility Installations, Page 50, Paragraph D., Trench Preparation:** Delete "at t2%"

**Standard Operating Procedure, SOP-212, Air Monitoring Procedure**

19) **Section 5.1, Page 3:** Delete use of REF background air monitoring station #17. A location closer to Streeterville must be found..

20) **Section 5.4.2, Page 4:** Counting filters at the REF?

**Attachment 3, Health and Safety Plan**

21) **General comment:** The specific names and resumes of key managers such as the Health and Safety Coordinator and the Field Team Leader must be included in this document.

22) **Figure 1.1, Page 2, next to last sentence at bottom of page:** This is not a USNRC licensed site.

**23) Section 2.1, Page 3, Last bullet:** This sentence is unclear. Will this be simply an administrative function or will this coordinator be monitoring the air and counting the filters for concentration measurements?

**24) Section 3.0, Personnel Responsibilities, Page 4, Second paragraph:** Will the Field Team Leader conduct any training on radiation or any periodic briefings on radiation matters? This paragraph does not commit to that.

**25) Section 4.1, Page 6:** The title for this section should include the word "radioactive," as Principal Radioactive Contaminants.

**26) Section 4.1, bullets:** The hazards include the entire thorium (Th-232) and uranium (U-238) decay chains. There are two (2) radiums which have been singled out (Ra-226, Ra-228). Both radons (Rn-220, Rn-222) are potential hazards.

**27) Section 4.1, Sentence after bullets:** The known total radium concentration exceeds 3000 picocuries per gram. This should not be cited as a low concentration.

**28) Section 4.1, ROUTE, ENTRY MADE VIA:** Inhalation should include radon which is not a heavy metal. Direct exposure can also occur from X-rays.

**29) Section 4.3.1, Dosimetry/Personal Monitoring, Page 11:** Project Health Physics Personnel is nonspecific. There must be a specific project manager.

**30) Section 4.3.3, Bioassay, Page 12, Second paragraph:** The decision to use bioassay should not be based just on dosimetry. If there were an excessive intake, there could be a need for immediate bioassay that would not require any dosimetry justification.

The determination should be made by a specific, designated manager such as the Health and Safety Coordinator or the Field Team Leader. Project Health Physics personnel is nonspecific.

**31) Section 4.3.4, Emergency Medical Treatment, Page 13, bullets:** There should be an individual trained specifically on radiation emergency response.

**32) Section 5.1, Page 17, Bullets:** Training must include radiation in general as well as the hazards.

**33) Section 5.3, Page 18:** Tailgate meetings, as needed, should be held more often than weekly.

**34) Section 5.4, Page 18:** This trained individual should be trained in radiological response as well.

**35) Safety Meeting Report:** Supervisor and Department Head are not titles specific to this project. The appropriate titles should be applied.

**36) Figure 5.2:** Has this apparently Kerr-McGee form been reviewed for applicability to this site specifically?

**37) Section 7.1, Page 28:** A key control mechanism should be stated as "no visible dust."

**38) Section 7.2, Page 28, Bullets:** Monitoring also includes counting filters, computing concentrations and comparing concentrations to criteria.

**39) Section 7.2, Paragraph beginning with "Lapel":** This paragraph is vague. Air filters can be read on a daily basis to assess for the need to make procedural changes, but, for most filters, they cannot be read on a daily basis. The method must be specific in this section. How will the interferences be handled, specifically? How much time will be allowed for decay? These are some of the specific issues that should be addressed in this section.

**40) Section 7.2, page 28, Last paragraph:** If high volume samplers are used, then dust buildup will be an issue because a thick dust layer will shield out alpha particle emissions and give incorrect air concentrations. Low volume samplers are more appropriate. Depending upon the collection and analytical protocols, daily measurements of concentration may not be possible except to qualitatively compare one day to the next.

**41) Section 7.2, Page 29, Last paragraph:** The specificity in this paragraph is good and could be used to improve other, vague, sections.

**42) Section 7.5, Page 30:** There are no regulatory limits, specifically, for this project but there are relevant and appropriate requirements that must be conformed to.

The primary instruments for this project will probably be the sodium iodide count rate meter and a Geiger counter. The first for seek and find work and for soil concentration judgments. The later for personnel surveillance. A micro-R meter could be used periodically but would not be a primary instrument. This paragraph should be improved with these ideas in mind.

**43) Section 7.6, Page 30, Second paragraph:** Frisker is nonspecific. A more specific instrument should be identified.

**44) Section 7.8.1, Radiological Action Levels, Page 31, First paragraph:** Smearing workers is not an appropriate surveillance method. Trigger levels on specific worker surveillance instruments should be stated. These should include gamma exposure rates.

**45) Table 7-1, Page 33, Item a:** Smear samples are appropriate to objects. It is unclear how an object smear will indicate a need to upgrade respiratory protection.

The radionuclide specific DAC should be written down. Also, there will be a need to translate gross alpha counts to the appropriate level for a single radionuclide concentration.

It would be prudent to institute action levels before the regulatory criteria are reached.

**46) Section 8.0, Personal Protective Equipment, Page 35, First set of bullets:** Coveralls should be disposable or washable through a contaminated clothing vendor. Coveralls should be those removed at the boundary of the exclusion zone.

**47) Section 9.2, Page 36, First paragraph:** The boundary for removing contaminated clothing should be the exclusion zone, not the site boundary.

The following comments must be included in the final workplan. The final workplan must be submitted by July 26, 2001. Pending receipt of the final workplan, work can begin at the 341 East Ohio property immediately, if all parties are in agreement with the above comments.

If you have questions regarding this letter, please contact me, as soon as possible, at (312) 886-5123 or contact Verneta Simon, On-Scene Coordinator, at (312) 886-360, or Larry Jensen, Senior Health Physicist at (312) 886-5026.

Sincerely,



Fredrick A. Micke, P.E.  
On-Scene Coordinator  
ERB Section #3

cc: Mark Krippel, Kerr-McGee